

10. ABSTRACT

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Isolation of vacuoles from *Scutellaria baicalensis* Georgii suspension cultures

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The goal of the thesis was to develop methodology for isolation of vacuoles from suspension cultures of *Scutellaria baicalensis* Georgii of the *Lamiaceae* family. The original concept was based on a method used at the Division of Pharmacognosy, Leiden University, Holland. This method proved unsuitable. After getting acquainted with available papers concerning methods of isolation of vacuoles from miscellaneous plant species and after performing a series of experiments, we have managed to introduce such method of our own which utilizes Ficoll gradient. Preexisting methods of isolation of vacuoles varied in data on lytic enzymes, incubation time, lytic solution composition and density gradient, too. We managed to optimize the individual steps, which led to successful isolation of vacuoles.

The resulting method makes it possible to isolate vacuoles in a relatively short time and in sufficient quality for further experiments.

Keywords: Baikal Skullcap, *Scutellaria*, vacuoles, flavonoids, ficoll, gradient, isolation of vacuoles

